CRIME AND INCOME INEQUALITY: THE CASE OF MALAYSIA

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Abstract
This paper examines the causality between income inequality and crime in Malaysia for the period 1973-2003. Autoregressive Distributed Lag (ARDL) bounds testing procedure is employed to (1) analyze the impact of income inequality on various categories of criminal activities as well as to (2) analyze the impact of various categories of criminal activities on income inequality. Interestingly our results indicate that income inequality has no meaningful relationship with any of the various categories of crime selected, such as total crime, violent crime, property crime, theft and burglary. Crime exhibits neither long-run nor short run relationships with income inequality and they are not cointegrated. It cannot be denied that there is ambiguity in the empirical studies of crime economics regarding various income variables leading to often mixed and contradicting results, which might be a good explanation of this finding.

Keywords: Causality; Income inequality; Crime.

JEL Classification Codes: C32; D63.

1. Introduction

Crime or more specifically criminal and violent behavior has become a major concern in recent years across the world and have gained considerable popularity in term of the number of researches being conducted and results being debated. Crime rates vary enormously across countries and regions. Recently there have been more and more studies, quantitative studies in comparative criminology to investigate the effects of societal development on crime trends and types of crime. Arguably, crime literature originally proposed by Becker (1968) and Ehrlich (1973) have been considered as the most important seminal work in rejuvenating the interest in crime studies. Norms that promote fairness such as equity and equality are sometimes considered to be closely related to level of criminal activities. Many economists agree that rising inequality makes problems like poverty and crime more intractable and undermines the political base of democratic capitalism.

According to Chisholm and Choe (2005) there is ambiguity in the empirical studies of crime economics regarding various income variables used to proxy the expected net gains from crime and as a result empirical findings are often mixed or contradictory to one another. The possible explanations for cross country differences are many, ranging from distinct definitions of crimes and different reporting rates (percentage of the total number of crimes actually reported to the police), to real differences in the incidence of crime and even to different cultural aspects. No matter how we look at it, it is still an utmost important subject due to its large impact on a psychological aspect as well as economical aspect. Its pernicious effects on economic activities and more generally on the quality of life of people contribute to the emerging fact that crime is merging as a priority in policy agendas worldwide. Due to the complexity of the phenomenon and lack of consensus among policy makers or scholars, research on this issue continues to be conducted in many areas.

The impact of crime on an economy can be segregated into, primarily the prevention cost, and secondarily the correctional cost and the lost opportunity of labor being held in correctional facility. Costs acquainted with crime preventions, such as private investment for crime prevention gadgets such as anti theft or anti burglary equipments, or government expenditures such as campaigns and education on safe society and police personnel expenditure. The correctional cost refers to cost such as correction facilities cost and prison personnel, while the lost opportunity refers to the lost of potential labor contribution due to being in correction facilities. Crime results not only in the loss of property, lives and misery, they also cause severe mental anguish. Imrohoroglu et al. (2006) mentioned that according

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to United Nations Interregional Crime and Justice and Justice Research Institute, people victimized by property crime (as a % of the total population) varied between 14.8% in New Zealand to 12.7% in Italy, 12.2% in U.K., 10.0% in U.S., and 3.4% in Japan.

Madden and Chiu (1998) mentioned that it seems reasonable to expect that the level of property crime will be influenced in some way by the distribution of income (and wealth) while Teles (2004) reiterated that monetary and fiscal policies have impacts on crime. More analysis are being done recently linking income inequality to crime such as Fajnzylber et al. (2002a, 2002b), Chisholm and Choe (2005), Imrohoroglu et al. (2006), Choe (2008), Lorenzo and Sandra (2008), Magnus and Matz (2008), to name a few.

However not many papers was written on the subject of crime in Malaysia, except by Sidhu (2005) which was a descriptive research on the trends of crime in Malaysia, and also by Habibullah and Law (2007) on the relationship between crime and financial economic variables. It cannot be argued that crime is an utmost important subject of study; the fact that the nation and public griped with fear due to the rising statistics of criminal activities and media, both electronic and print, highlighting it on a daily basis.

This paper is organized as follows. In the next section we discuss some prior evidence on the effect of macroeconomic variables especially income inequality on criminal activity. In section 3, we present the unit root, cointegration and *Granger* causality tests in the ARDL bounds testing framework used in the study. In section 4, we discuss the empirical results and the last section contains our conclusion.

2. A review of related literature

As explained in the early part of this paper, it cannot be denied that the seminal paper by Becker (1968) and Ehrlich (1973) have been considered as the most important work in rejuvenating the interest in crime studies. While Becker (1968) emphasizes on the cost and benefit of crime, Ehrlich (1973) extends Becker's crime model by including the role of opportunity cost between illegal and legal work. Madden and Chiu (1998), Fajnzylber et al. (2002a) and Choe (2008) discussed about the relationship between income inequality and crime. Madden and Chiu (1998) was more specific, since he only researches about burglary, Choe (2008) tested income inequality on various type of crime while Fajnzylber et al. (2002b) studied about the causes of violent crime.

Madden and Chiu (1998) presented a theoretical model which traces a potential link between worsening income inequality and increases in the number of burglaries, and his most powerful result (Theorem 3) says simply that increases in relative differential inequality increase the level of crime. Fajnzylber et al. (2002b) strongly reported that increases in income inequality raise crime rates (violent crime), in their study on several developed and developing countries for the period 1970-1994. The same kind of result was also obtained for Mexico in a study by Lorenzo and Sandra (2008) whereby they found that wage inequality has an important impact on crime. Another study which shares the similar result is a study by Nilsson (2004) on Sweden, and found a strong relationship between income inequality and crime (robbery/theft).

This is in contrary to the finding of Choe (2008) who could not find any significant relationship between crime rates (violent crime and property crime) and income inequality. Mehanna (2004) shared the same result, whereby they found that income inequality has no important impact on crime in their study for United for the period 1959-2001. Magnus and Matz (2008) went a step further whereby they separated the effects of permanent and transitory income, diverting from the traditional aggregated measures. They reported that while an increase in inequality in permanent income yields a positive and significant effect on total crimes and property crimes, an increase in inequality in the transitory income and traditional aggregated measures yields insignificant effect.

Brush (2007) conduct and compare cross-sectional and time series analyses of United States counties, interestingly, the results are in contradiction, income inequality is positively associated with crime rates in the cross section analysis, but it is negatively associated with crime rates in the time-series analysis. Habibullah and Law (2007) utilized Vector Error Correction Model (VECM) in their study about crime and financial economic variables in Malaysia, and generally their result suggests that criminal activity in Malaysia cannot be explained properly by real income per capita, financial wealth and interest rate.

3. Overview of crime rates in Malaysia

Figure 1 illustrates the crime statistics by various categories of crime selected, such as total crime, violent crime, property crime, theft and burglary in Malaysia for the period 1973-2003. It can be seen here that the trends are more or less the same across categories showing similar upward and downward trend throughout the three decades, peaking at 2000. Figure 2 illustrates the growth rate of crime by various categories of crime selected, such as total crime, violent crime, property crime, theft and burglary in Malaysia for the period 1974 - 2003. Again it can be observed that the trends are more or less the same across categories. Figure 3 illustrates the income inequality in Malaysia for the period (1974 – 2003), and it can be observed that income distribution was getting better towards 1980, and then it worsens till 1986 and back on track to betterment and stabilizes in early 2000.

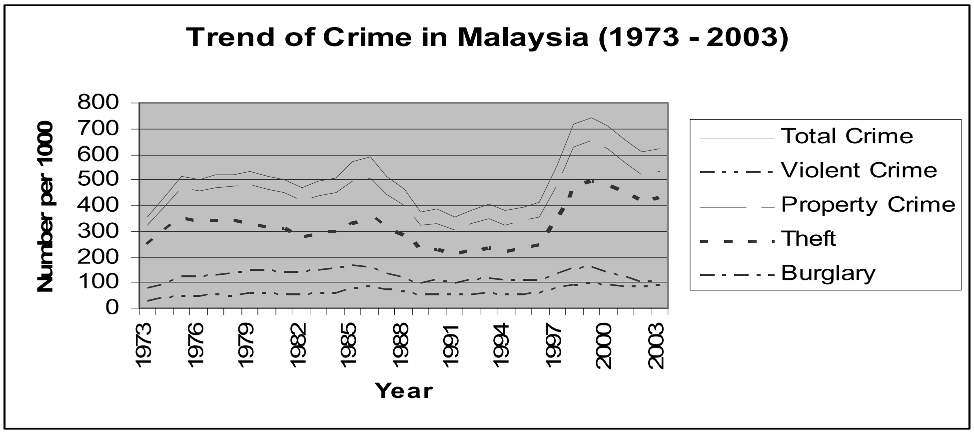

Figure 1: Trend of crime in Malaysia (1973 – 2003)

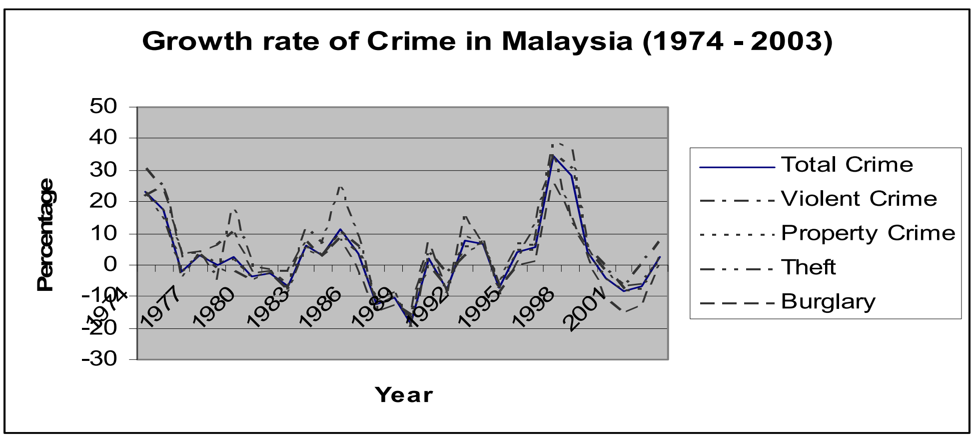

Figure 2: Trend of Growth rate of Crime in Malaysia (1973 – 2003

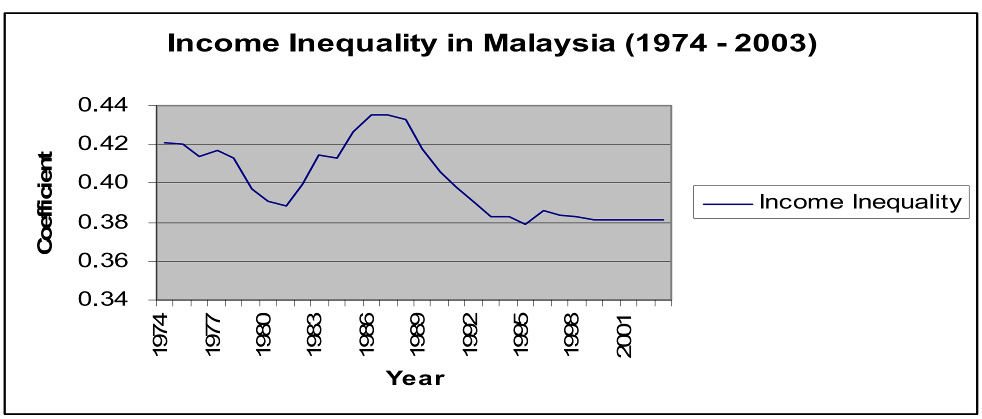

Figure 3: Trend of income inequality in Malaysia (1974 – 2003)

4. Methodology

Bound testing procedures developed by Pesaran et al. (2001) within an autoregressive distributed lag (ARDL) framework was chosen due to its main advantage that is the bounds test approach is applicable irrespective of whether the underlying regressors are purely I(0), purely I(1) or mutually cointegrated. Apart from that, unrestricted error-correction model (UECM) is likely to have better statistical properties than the two-step Engle-Granger method because, unlike the Engle-Granger method, the UECM does not push the short –run dynamics into the residual term (Banerjee et al, 1998). To implement the bounds testing procedure, we estimate the following conditional ARDL unrestricted error-correction model as follows

$$\Delta CRIME_t = \alpha_0 + \alpha_1 CRIME_{t-1} + \alpha_2 INCOME_{t-1} + \sum_{i=1}^{m} \alpha_{3,i} \Delta CRIME_{t-i} + \sum_{i=0}^{n} \alpha_{4,i} \Delta INCOME_{t-i} + \varepsilon_t \quad (1)$$

$$\Delta INCOME_t = \beta_0 + \beta_1 INCOME_{t-1} + \beta_2 CRIME_{t-1} + \sum_{i=1}^{m} \beta_{3,i} \Delta INCOME_{t-i} + \sum_{i=0}^{n} \beta_{4,i} \Delta CRIME_{t-i} + \mu_t \quad (2)$$

Whereby α_0 and β_0 are constant terms and ε_t and μ_t are the disturbance terms. When a long- run relationship exists the *F*-test indicates which variable should be normalized (Narayan and Narayan, 2005). The null hypothesis for no cointegration among the variables in Eq. (1) is ($Ho: \alpha_1 = \alpha_2 = 0$) denoted by F_{crime} (crime|inequality) against the alternative ($H1: \alpha_1 \neq \alpha_2 \neq 0$). Similarly, for Eq. (2) the null hypothesis for no long run meaningful relationship among the variables is ($H_0 : \beta_1 = \beta_2 = 0$) as denoted by $F_{inequality}$ (inequality|crime) against the alternative ($H_1 : \beta_1 \neq \beta_2 \neq 0$).

The asymptotic distribution of critical values is obtained for cases in which all regressors are purely *I*(1) as well as when the regressors are purely *I*(0) or mutually cointegrated. Because the critical value of the test depends on the order of integration of the variables, *I*(*d*), where $0 \leq d \leq 1$, the test utilizes a critical range such that values exceeding the range are evidence of rejection, values less than the range are evidence of non-rejection, and values within the range are inconclusive. In other words, if the test statistics exceed their respective upper critical values (assuming purely *I*(1) regressors) we can conclude that a long-run relationship exists. If the test statistics fall below the lower critical values (assuming the regressors are *I*(0)) we cannot reject the null hypothesis of no cointegration. Inconclusive results achieved when the test statistics fall within their respective bounds.

Sources of Data

Data for the income inequality for Malaysia, for the corresponding period was obtained from University of Texas, which are estimates of gross household income inequality, computed from a regression relationship between the Deininger and Squire inequality measures and the UTIP-UNIDO pay inequality measures. As for the data on various categories of crime for the period 1973 to 2003, it was obtained from the Royal Malaysian Police (PDRM). Categories selected are total crime, burglary, theft, violent crime and property crime. Throughout the analysis, all variables were transformed into natural logarithm.

5. The empirical results

Before testing for cointegration by using the ARDL bounds testing procedure, we test for the order of integration for all categories of crime and inequality variables. Table 2 show the results of the unit root test for the test of the order of integration of the economic time series under investigation. Clearly the augmented Dickey-Fuller test (Dickey and Fuller, 1981) statistics indicate that all categories of crime and income inequality economic series in Malaysia are stationary after first differencing (*I*(1)) Table 1 reports the summary statistics of all the variable chosen for this study.

Having noted that all series are of the same order of integration, that is they are all *I*(1) processes, our relevant critical values are the upper bound of purely *I*(1) regressors. These results are tabulated in Table 3. When the various categories of crime is used as the dependent variable, the null hypothesis of no cointegration cannot be rejected in all the cases and *vice versa*, when income inequality is used as the dependent variable, in all cases the null hypothesis of no cointegration cannot be rejected. Both these results suggest that there are no long-run relationships between income inequality and the crime variable, namely; total crime, burglary, violent crime, property crime, theft for the case of Malaysia.

Table 1: Descriptive analysis

	Income inequality	Burglary	Property	Violent	Theft	Total crime
Mean	0.40221	124.5621	445.8017	61.2753	321.2396	507.077
Median	0.39802	121.1846	451.5979	54.69127	312.9099	510.406
Maximum	0.435552	162.6594	651.5103	93.1616	493.2717	744.672
Minimum	0.379018	77.25022	304.1563	28.22281	209.7682	354.1379
Std. Dev.	0.019489	22.39909	94.29154	17.29077	81.41265	108.2592
Skewness	0.350199	-0.035182	0.386013	0.501967	0.605738	0.50474
Kurtosis	1.673783	2.045011	2.508635	2.281272	2.51021	2.536053
Jarque-Bera	2.905484	1.184401	1.081725	1.969086	2.205612	1.594302
Probability	0.233928	0.553109	0.582246	0.37361	0.331938	0.450611
Sum	12.46851	3861.427	13819.85	1899.534	9958.427	15719.39
Sum Sq. Dev.	0.011394	15051.58	266726.8	8969.123	198840.6	351601.4
Observations	31	31	31	31	31	31

Table 2: Results of ADF unit root test

Crime rate category	Level (Intercept and Trend)	First difference (Intercept)
Total Crime	-2.35	3.24**
Violent Crime	-2.75	3.71***
Property Crime:	-2.29	-3.19**
Theft	-2.84	-3.23**
Burglary	-2.19	-3.21**
Income Inequality	-1.52	-3.56**

Notes: ** and *** denotes significant at 5% and 1% respectively. Based on automatic lag selection (AIC) k = 7 for all the variables

Table 3: Bounds test results for long-run relationship

Critical value bounds of the F-statistic: intercept and no trend						
	90% level		95% level		99% level	
T	$I(0)$	$I(1)$	$I(0)$	$I(1)$	$I(0)$	$I(1)$
29	3.303	3.797	4.090	4.663	6.027	6.760

Calculated F-statistic:		
Types of crime	Fcrime (crime|inequality)	Finequality (inequality|crime)
Total Crime	3.6625	2.9875
Violent Crime	2.9623	3.6545
Property Crime:	3.5698	2.7894
Theft	3.5766	2.8794
Burglary	3.5144	3.6231

Notes: t statistic showing none of them statistically significant even at the 10% level. Critical values are taken from Narayan (2005).

Figure 4 to Figure 8, display the results of the impulse response of the five criminal activities chosen with income inequality *vice versa,* again the results are robust and shows that any shocks in the crime variable does not constitutes any shocks to income inequality. On the other hand, any shock to income inequality also does not constitute any significant changes to crime. we can conclude that the variables does not respond to changes of the other variable

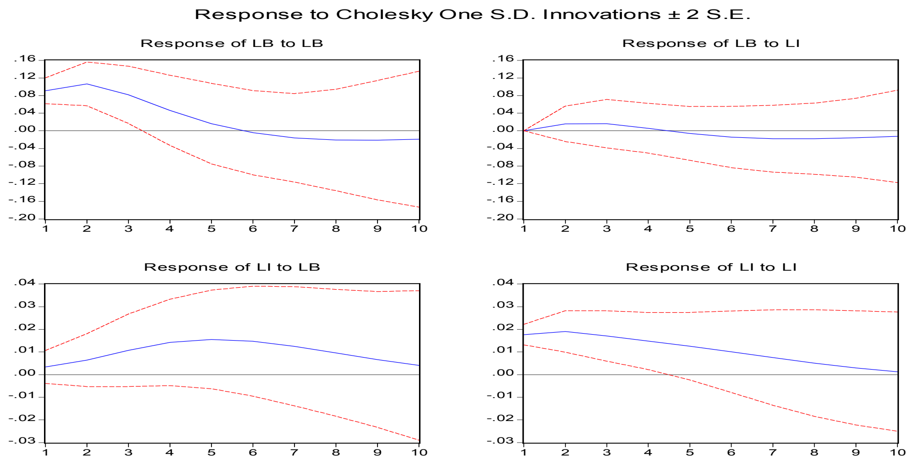

Figure 4: Impulse response function between inequality and burglary

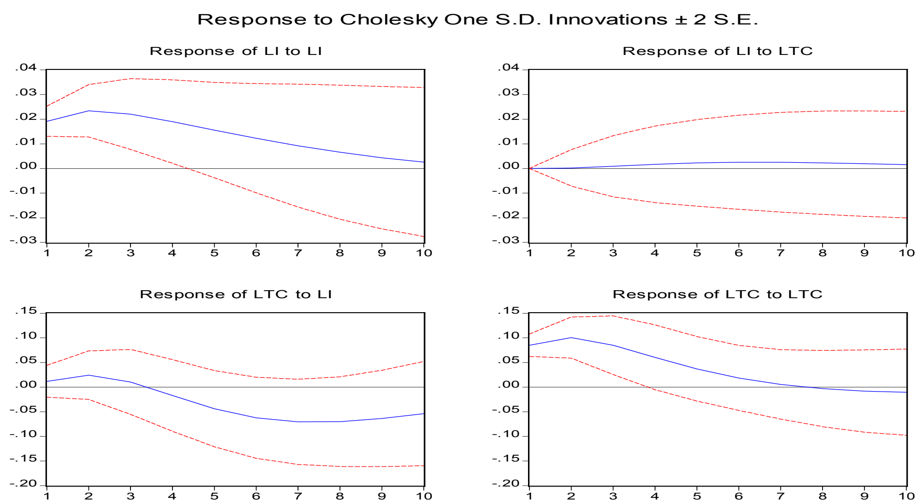

Figure 5: Impulse response function between inequality and total crime

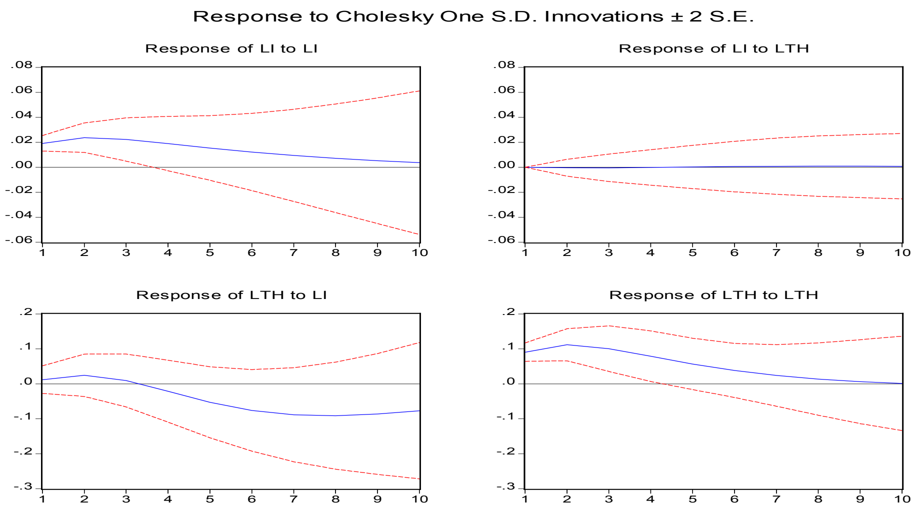

Figure 6: Impulse response function between inequality and theft

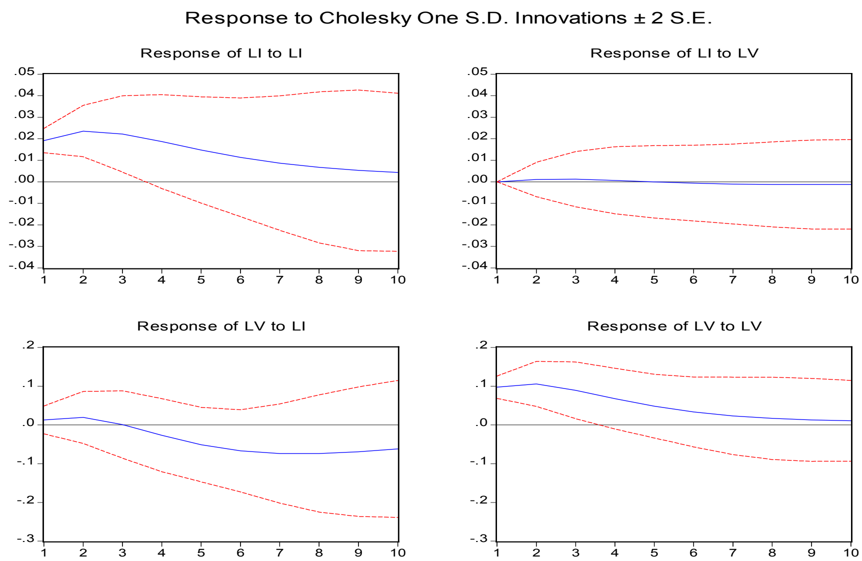

Figure 7: Impulse response function between inequality and violent crime

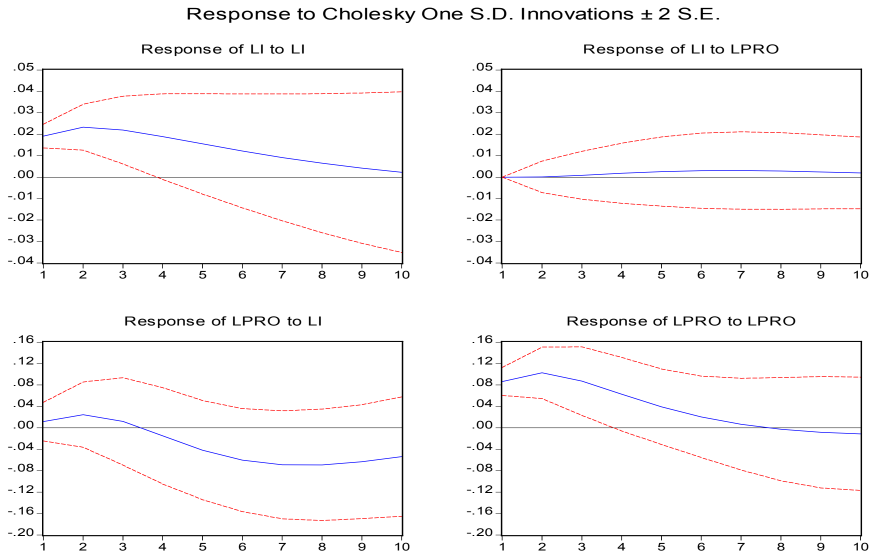

Figure 8: Impulse response function between inequality and property crime

As for variance decomposition, the results shown in Table 4 to Table 8 are similar to prior finding whereby showing the same pattern of results, there are no meaningful relationship between these variables (crime and income inequality. In fact percentage changes that contributed to the other variable is too small and it stabilizes after a few periods. These results are very consistent in nature.

Table 4: Variance decomposition of inequality and violent crime

	Variance Decomposition of LI:				Variance Decomposition of LV:		
Period	S.E.	LI	LV	Period	S.E.	LI	LV
1	0.019124	100.0000	0.000000	1	0.098142	1.689669	98.31033
		(0.00000)	(0.00000)			(6.45709)	(6.45709)
2	0.030362	99.87055	0.129451	2	0.145609	2.539530	97.46047
		(2.34707)	(2.34707)			(7.71387)	(7.71387)
3	0.037629	99.81030	0.189702	3	0.170787	1.849457	98.15054
		(4.25950)	(4.25950)			(8.20204)	(8.20204)
4	0.042015	99.82024	0.179764	4	0.185614	3.614033	96.38597
		(5.63628)	(5.63628)			(10.4373)	(10.4373)
5	0.044542	99.84004	0.159955	5	0.198459	9.755484	90.24452
		(6.76396)	(6.76396)			(15.6090)	(15.6090)
6	0.045969	99.83169	0.168309	6	0.212103	18.49108	81.50892
		(7.78857)	(7.78857)			(20.2681)	(20.2681)
7	0.046787	99.78947	0.210531	7	0.225823	27.02699	72.97301
		(8.70534)	(8.70534)			(22.8378)	(22.8378)
8	0.047278	99.72653	0.273470	8	0.238183	33.90411	66.09589
		(9.49334)	(9.49334)			(23.9862)	(23.9862)
9	0.047593	99.65937	0.340626	9	0.248347	38.93185	61.06815
		(10.1297)	(10.1297)			(24.4866)	(24.4866)
10	0.047810	99.59936	0.400643	10	0.256194	42.44080	57.55920
		(10.5984)	(10.5984)			(24.6822)	(24.6822)

Note : Standard Errors: Monte Carlo (100 repetitions)

Table 5: Variance decomposition of inequality and theft

	Variance Decomposition of LI:				Variance Decomposition of LTH:		
Period	S.E.	LI	LTH	Period	S.E.	LI	LTH
1	0.019177	100.0000	0.000000	1	0.091461	1.674753	98.32525
		(0.00000)	(0.00000)			(5.41495)	(5.41495)
2	0.030495	99.98203	0.017971	2	0.146526	3.430165	96.56983
		(1.47821)	(1.47821)			(8.51508)	(8.51508)
3	0.037763	99.97441	0.025591	3	0.178065	2.609666	97.39033
		(2.95848)	(2.95848)			(10.1306)	(10.1306)
4	0.042257	99.97819	0.021812	4	0.195952	3.333270	96.66673
		(4.58607)	(4.58607)			(10.0582)	(10.0582)
5	0.044991	99.97786	0.022144	5	0.210762	9.156809	90.84319
		(6.53842)	(6.53842)			(11.6626)	(11.6626)
6	0.046632	99.96314	0.036862	6	0.227331	19.07895	80.92105
		(8.56311)	(8.56311)			(15.4658)	(15.4658)
7	0.047597	99.93425	0.065753	7	0.245130	29.44671	70.55329
		(10.3409)	(10.3409)			(18.5250)	(18.5250)
8	0.048144	99.89765	0.102345	8	0.261848	37.90182	62.09818
		(11.6696)	(11.6696)			(20.0988)	(20.0988)
9	0.048439	99.86068	0.139324	9	0.275786	43.97006	56.02994
		(12.5237)	(12.5237)			(20.8628)	(20.8628)
10	0.048586	99.82845	0.171551	10	0.286362	48.03036	51.96964
		(13.0295)	(13.0295)			(21.2578)	(21.2578)

Note : Standard Errors: Monte Carlo (100 repetitions)

Table 6: Variance decomposition of inequality and total crime

	Variance Decomposition of LI:				Variance Decomposition of LTC:		
Period	S.E.	LI	LTC	Period	S.E.	LI	LTC
1	0.019138	100.0000	0.000000	1	0.085717	1.887642	98.11236
		(0.00000)	(0.00000)			(4.88368)	(4.88368)
2	0.030231	99.99429	0.005713	2	0.134223	3.997877	96.00212
		(2.67181)	(2.67181)			(8.11754)	(8.11754)
3	0.037447	99.93727	0.062726	3	0.159176	3.278697	96.72130
		(5.50168)	(5.50168)			(9.84848)	(9.84848)
4	0.042030	99.78920	0.210797	4	0.171093	3.820781	96.17922
		(7.80096)	(7.80096)			(10.6663)	(10.6663)
5	0.044885	99.55983	0.440171	5	0.180482	9.341179	90.65882
		(9.69661)	(9.69661)			(13.2317)	(13.2317)
6	0.046604	99.29389	0.706110	6	0.191866	18.83654	81.16346
		(11.3735)	(11.3735)			(16.5174)	(16.5174)
7	0.047582	99.03991	0.960088	7	0.204538	28.50959	71.49041
		(12.7382)	(12.7382)			(18.9203)	(18.9203)
8	0.048094	98.83058	1.169422	8	0.216269	36.03529	63.96471
		(13.7162)	(13.7162)			(20.4124)	(20.4124)
9	0.048333	98.67837	1.321631	9	0.225588	41.08572	58.91428
		(14.3547)	(14.3547)			(21.3153)	(21.3153)
10	0.048428	98.58007	1.419932	10	0.232134	44.16496	55.83504
		(14.7170)	(14.7170)			(21.8993)	(21.8993)

Note : Standard Errors: Monte Carlo (100 repetitions)

Table 7: Variance decomposition of inequality and burglary

	Variance Decomposition of LI:				Variance Decomposition of LB:		
Period	S.E.	LB	LI	Period	S.E.	LB	Li
1	0.017962	3.541312	96.45869	1	0.090816	100.0000	0.000000
		(7.49357)	(7.49357)			(0.00000)	(0.00000)
2	0.026962	7.201380	92.79862	2	0.140971	98.73171	1.268292
		(10.0442)	(10.0442)			(4.03282)	(4.03282)
3	0.033661	14.78468	85.21532	3	0.163716	98.07825	1.921754
		(13.7776)	(13.7776)			(7.08736)	(7.08736)
4	0.039426	23.76707	76.23293	4	0.170278	98.10315	1.896850
		(16.7831)	(16.7831)			(8.83333)	(8.83333)
5	0.044196	31.27887	68.72113	5	0.171159	98.00517	1.994827
		(18.8961)	(18.8961)			(9.66513)	(9.66513)
6	0.047670	36.45345	63.54655	6	0.171795	97.34258	2.657423
		(20.3276)	(20.3276)			(10.7321)	(10.7321)
7	0.049855	39.62209	60.37791	7	0.173458	96.33153	3.668465
		(21.2931)	(21.2931)			(12.0475)	(12.0475)
8	0.051025	41.36959	58.63041	8	0.175631	95.37697	4.623027
		(21.9842)	(21.9842)			(12.9116)	(12.9116)
9	0.051543	42.21136	57.78864	9	0.177615	94.69387	5.306126
		(22.4715)	(22.4715)			(13.2568)	(13.2568)
10	0.051718	42.53874	57.46126	10	0.179060	94.29527	5.704731
		(22.7449)	(22.7449)			(13.3364)	(13.3364)

Note : Standard Errors: Monte Carlo (100 repetitions)

Table 8: Variance decomposition of inequality and property crime

	Variance Decomposit ion of LI:				Variance Decompositi on of LPRO		
Period	S.E.	LI	LPRO	Period	S.E.	LI	LPRO
1	0.019112	100	0	1	0.087162	1.719255	98.28074
		0	0			(-5.64565)	(-5.64565)
2	0.030144	99.9983	0.0017	2	0.136819	3.928723	96.07128
		(-1.47687)	(-1.47687)			(-8.35303)	(-8.35303)
3	0.03729	99.944	0.055999	3	0.162638	3.315245	96.68475
		(-3.62136)	(-3.62136)			(-9.42812)	(-9.42812)
4	0.041835	99.76431	0.235691	4	0.174909	3.602059	96.39794
		(-5.90319)	(-5.90319)			(-9.63437)	(-9.63437)
5	0.04469	99.45556	0.544442	5	0.184035	8.390198	91.6098
		(-7.89071)	(-7.89071)			(-12.225)	(-12.225)
6	0.046429	99.07582	0.924184	6	0.194757	17.10258	82.89742
		(-9.50939)	(-9.50939)			(-15.7746)	(-15.7746)
7	0.047428	98.69795	1.302051	7	0.206755	26.34102	73.65898
		(-10.7367)	(-10.7367)			(-18.3252)	(-18.3252)
8	0.047953	98.37601	1.623988	8	0.218045	33.75676	66.24324
		(-11.6928)	(-11.6928)			(-19.765)	(-19.765)
9	0.048196	98.13515	1.864852	9	0.227187	38.84587	61.15413
		(-12.6492)	(-12.6492)			(-20.4627)	(-20.4627)
10	0.048291	97.97589	2.024114	10	0.233738	41.99109	58.00891
		(-13.6384)	(-13.6384)			(-20.7555)	(-20.7555)

Note : Standard Errors: Monte Carlo (100 repetitions)

6. Conclusion

In this study the autoregressive distributed lag (ARDL) bounds testing procedure was employed to investigate the long-run relationship between income inequality and various categories of crime namely total crime, burglary, violent crime, property crime and theft. A bivariate analysis on the impact of income inequality on the five categories of crime mentioned earlier, *vice versa* the impact of the criminal activities chosen on income inequality was conducted. The sample period was 1973 – 2003 and the data was annual. All the data went through log-log transformation so that the estimates will be less sensitive to outliers or influential observations and also in order to reduce the data range.

The results suggest that all the variables chosen are $I(1)$ or in other words they are non-stationary variables and achieved stationarity only after first differencing. The cointegration analysis using the ARDL bounds testing approach clearly indicates that none of the criminal activities chosen are cointegrated with income inequality. Though the results are interesting and in contradiction to the prior findings of Madden and Chiu (1998), Fajnzylber et al. (2002a, 2002b), Lorenzo and Sandra (2008) who all found significant relationship between income inequality and crime. It is not surprising because there are a number of studies who could not find meaningful relationship between income inequality and crime such as Choe (2008), Mehanna (2004), Magnus and Matz (2008) and Brush (2007). Although this study fails to find any significant relationship between income inequality and various categories of crime namely total crime, burglary, violent crime, property crime and theft, it is still an important finding. It shows that for the case of Malaysia no causality runs between the variables mentioned. From a policy perspective, when initiating crime reduction policies, the government should shift from the current "income inequality induces crime" to encompass other socioeconomic factors that could be part of broader system of crime causation.

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